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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/509,893

08/18/2005

Masanori Kosuga

NFA-0207

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01/18/2008

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EXAMINER

HALPERN, MARK

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

01/18/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/509,893 | Applicant(s) KOSUGA ET AL. | |
| | Examiner Mark Halpern | Art Unit 1791 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>9/8/06, 8/2/06, 1/3/05, 10/1/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

- 1) The Specification does not disclose how a concentration [C] in g/L multiplied by mPa-s results in a viscosity in terms of mPa-s. See Pages 3-4, where a concentration of [C] from 15 to 50 g/L becomes a viscosity from $0.12 \times [C]$ mPa-s to 15 mPa-s.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2) Claims 1-7, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-7 are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Claims 1, 3, 6, are not clear as to how a concentration [C] in g/L multiplied by mPa-s results in a viscosity in terms of mPa-s. Claim 1 in lines 3-5, for example, recites "...concentration from 15 to 50 g/L wherein the value of the concentration is shown by [C], a viscosity from $0.12 \times [C]$ mPa-s to 15 mPa-s..." .

Claim 3 recites the limitation "the high concentration range" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "the high concentration silica sol" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3) Claims 1-2, 4, 6-7, are rejected under 35 U.S.C. 102(b) as being anticipated by Keiser (6,372,089). Keiser discloses a process of making paper from a pulp slurry with silica sol added to the pulp slurry. The silica sol is used as a retention aid (Abstract). The silica sol is made by reaction of sodium silicate with a mineral acid, sulfuric acid (col. 11, lines 25-61, Example 3). Additionally cationic and/or amphoteric compounds are added to the slurry (col. 7, line 49 to col. 9, line 21). Silica sol of viscosity of 2.9 centipoise and pH of 2.76 is disclosed in Example 3. Silica sol concentration is from 7 to 20 percent by weight (col. 3, lines 1-13).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4) Claims 3, 5, are rejected under 35 U.S.C. 103(a) as being unpatentable over Keiser. Keiser discloses a process of making paper from a pulp slurry with silica sol added to the pulp slurry. The silica sol is used as a retention aid (Abstract). The silica sol is made by reaction of sodium silicate with a mineral acid, sulfuric acid (col. 11, lines 25-61, Example 3). Additionally cationic and/or amphoteric compounds are added to the slurry (col. 7, line 49 to col. 9, line 21). Silica sol of viscosity of 2.9 centipoise and pH of 2.76 is disclosed in Example 3. Silica sol concentration is from 7 to 20 percent by weight (col. 3, lines 1-13). Keiser fails to disclose silica sol concentration in the range of 100-200 g/L, however, it would have been obvious, to one skilled in the art at the time the invention was made, to obtain silica sol of high concentration to save on transportation costs, and dilute the silica sol, as necessary, prior to addition to the pulp slurry.

Conclusion

5) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Halpern whose telephone no. is 571-272-1190.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Mark Halpern/
Primary Examiner
Art Unit 1791